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India: The Drift in Nuclear Policy

Preoccupied with other domestic political problems and unwilling to complicate Indo-US relations, Prime Minister Gandhi has apparently backed away from the threat to reprocess spent nuclear fuel, opening her government to opposition attacks and causing serious morale problems in the nuclear establishment.

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India: The Drift in Nuclear Policy

India appears to have backed away from last year's tough anti-US position that favored unilaterally reprocessing spent nuclear fuel to keep the Tarapur Atomic Power Station operational.¹ The apparent retreat has opened Gandhi's government to opposition charges that India is pursuing a "weak-kneed" policy toward the United States. Indian nuclear scientists are becoming increasingly frustrated with the continuing drift in India's nuclear policy. Gandhi, however, is preoccupied with other domestic political problems and is unwilling to take precipitate action on a single sensitive issue that could complicate the whole range of Indo-US relations.

The Tarapur Impasse

India has faced the looming need to provide fresh fuel for the Tarapur reactor for well over a year but has delayed making a final decision on how to do so. Until now Tarapur has been running on light enriched uranium (LEU) acquired from the United States under the now moribund 1963 nuclear cooperation agreement. Last spring India decided to begin its own reprocessing operation in order to force the new US administration to release the final shipment of LEU that had been approved by the Carter administration but never sent. Failing that, New Delhi hoped that its reprocessing decision would force the United States to reevaluate—and if necessary terminate—the 1963 agreement. New Delhi intended to place the onus for default on Washington, which it believes has failed to act as a reliable and responsible nuclear supplier. By assuming a morally superior stance, India expected to have the widest range of options for procuring or manufacturing replacement fuel without the burden of US-imposed restrictions.

¹ For background see "India: The Decision To Reprocess Nuclear Fuel," *Near East and South Asia Review*, February 1981.

The continued operation of Tarapur, which has become a highly visible symbol of India's nuclear dependence on the United States, is as important for political reasons as for economic ones. The plant's reliance on US-supplied fuel (as well as the whole Indo-US nuclear relationship) has received considerable press coverage in India, most of which has advocated termination of the 1963 agreement and the promotion of indigenous fuel fabrication. A Tarapur shutdown for lack of fuel would embarrass Gandhi's government both domestically and with other developing countries who respect India's technological advancement and who would like to see New Delhi operate its own nuclear program without bowing to US rules and depending on US assistance.

Policy Drift

Gandhi has committed herself politically to Tarapur's continued operation, but for the past year she has delayed deciding on how to provide future fuel supplies. This indecision has brought about a drift in nuclear policy. In part this is because Gandhi is inherently cautious and avoids foreclosing options whenever possible. In addition she is preoccupied with political difficulties and is not focusing on nuclear policy. Her Congress(I) Party is suffering from organizational problems and is in danger of losing elections in several states next month.

Gandhi's increasing concern about the general health of Indo-US bilateral relations, however, is a more important reason for the delay. She appears reluctant to force any issue that could adversely affect other aspects of New Delhi's relations with Washington. In December 1981 she stated publicly for the first time that the Tarapur decision would be taken within the context of "the national interest and overall bilateral relations with the United States." A unilateral Indian decision to pursue options disallowed under the 1963

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agreement would violate the agreement, invite sanctions, place the burden of default on India, and complicate bilateral relations while Gandhi is seeking to improve them.

The time for a decision is running out. Tarapur could continue operating until late 1983 by reusing some prematurely discharged fuel elements, but only at a fraction of its rated capacity. To avoid a shutdown of the reactor, a decision on fueling should be made as soon as possible.

Preparations for Reprocessing

India is considering several options for fueling Tarapur, any one of which would be a violation of the 1963 agreement. Although none has been formally chosen by the leadership, New Delhi appears ready to pursue the reprocessing route. Spent reactor fuel from the Rajasthan Atomic Power Station (RAPS) has already been moved to Tarapur's reprocessing plant, which has been operational for some time but has only handled small amounts of unsafeguarded fuel from a research reactor. (RAPS fuel is safeguarded but is not of US origin and is therefore not subject to the 1963 Indo-US agreement.) Parliament was told recently that the Department of Atomic Energy planned to put the plant into regular operation in the near future.

The International Atomic Energy Agency (IAEA) expects that reprocessing of RAPS fuel will begin sometime this summer and anticipates receiving at least 60 days' notice from India before the operation actually begins.

Reprocessing may not solve Tarapur's immediate fuel shortage because of the long leadtime it requires. The purpose of reprocessing is to extract plutonium for use in a mixed oxide fuel (uranium oxide and plutonium oxide—MOX) that can be used in place of LEU to power Tarapur's light-water reactor. India appears to be having technical difficulty in producing MOX, which may be a factor in Gandhi's reluctance to abruptly sever nuclear relations with the United States.

A small experimental MOX plant has been built at the Bhabha Atomic Research Center (BARC) near Bombay, and construction is about to begin on a

larger one at Tarapur. Only the latter plant can supply enough MOX, but it probably will not be ready until late 1983 or early 1984. Furthermore the conversion of the Tarapur reactor to accept MOX promises to be difficult. Although BARC scientists have successfully tested MOX in the laboratory, India would be the first country to run a power reactor exclusively on this hybrid fuel. BARC engineers would be forced to grapple with many new and unfamiliar technical problems which would have to be solved through painstaking experimentation in order to make it work.

The reprocessing/MOX alternative to LEU is attractive for political and psychological reasons. A successful program would boost India's image at home and abroad by demonstrating the country's nuclear independence and technological superiority. In addition, New Delhi has been threatening to institute such a program for many months. To back down now might prove politically damaging. The MOX route is also known to be favored by hardline advocates of nuclear independence such as BARC Director Dr. Raja Ramanna.

Other Options

India is conducting research into uranium enrichment techniques—using the gas centrifuge process—as an alternative means of fueling Tarapur. Construction of the necessary facilities, however, would be expensive and probably not worth the cost of supplying India's only light-water reactor. The enrichment option, moreover, will not bear fruit for at least several years. At least part of India's motivation in conducting enrichment research is to catch up with Pakistan on centrifuge technology.

India could also purchase LEU from a third country—probably France, Italy, or the USSR. Although the issue has been raised in bilateral talks, no specific deals have been discussed. External purchase would require a short leadtime (four to six months or less) following a decision and could be used as a stopgap until MOX techniques are perfected. Some senior Indian diplomats reportedly believe that the United States may be persuaded to allow India to pursue this

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option. In principle India remains opposed to external dependency and would probably choose this course only as a last resort.

Gandhi's Decision

Gandhi will almost certainly delay making any decision on Tarapur until after she has discussed the problem with US officials. She appears unwilling to terminate nuclear relations with the United States if there is even a remote possibility for some accommodation. In addition to the fuel issue, Tarapur is in serious need of US spare parts, without which it cannot operate safely.

If India does not gain the release of the final 20-ton shipment of LEU from the United States, as seems likely, Gandhi will probably seek a mutually acceptable termination of the 1963 agreement which would free India to pursue other options and prevent damage to other aspects of Indo-US relations. If no conclusive arrangements can be made with the United States, internal pressures from scientists and politicians will probably influence Gandhi to begin a unilateral reprocessing program, even at the cost of further irritating Washington.

Meanwhile, India is continuing its efforts of last year to press the United States to formally abrogate the agreement. India has officially notified the IAEA that it intends to move spent fuel from the Tarapur reactor to the neighboring reprocessing plant. The United States maintains that the disposition of Tarapur fuel—which unlike RAPS fuel is of US origin—must be coordinated with the United States. Any unilateral Indian attempt to reprocess it would constitute a violation of the 1963 agreement. Although there is no evidence of any Indian decision to reprocess Tarapur fuel, New Delhi apparently hopes that the threat to do so will induce Washington to end the treaty on its own.

Morale Problems

Gandhi's preoccupation with other matters has led to a drift in nuclear policy that is causing serious morale problems in the nuclear establishment. Some frustrated scientists are reportedly leaving the program. Scientists have been complaining for several months that they were being given no guidance from New Delhi on how to keep Tarapur running in spite of the nonperforming Indo-US agreement. Gandhi's apparent sacrifice of India's nuclear independence in the cause of better Indo-US relations cannot be a source of comfort to nuclear hawks like Ramanna.

The Indian nuclear program, moreover, is faltering badly on many fronts. In spite of grandiose plans and self-congratulatory publicity, it has long been plagued by construction delays and breakdowns. Some scientists are discouraged because India cannot afford to spread its nuclear resources too thin by pursuing several diverse options simultaneously. Morale is likely to worsen as long as Gandhi keeps postponing a final decision on Tarapur.